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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/690,694	10/16/2000	YUJI TAKAMIZAWA	P5285A	3266

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EPSON RESEARCH AND DEVELOPMENT INC  
INTELLECTUAL PROPERTY DEPT  
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SAN JOSE, CA 95134

EXAMINER
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NGUYEN, MADELEINE ANH VINH

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/690,694

Applicant(s)

TAKAMIZAWA ET AL.

Examiner

Madeleine AV Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on May 16, 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

This communication is responsive to amendment filed on May 16, 2005.

### ***Response to Arguments***

1. Applicant's arguments, see pages 8-9, filed on May 16, 2005, with respect to the rejection(s) of claim(s) 1-27 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Makino et al (US Patent No. 4,825,405), Teradaira et al (US Patent No. 5,800,081), and Ohtani (US Patent No. 5,598,271).

### ***Claim Rejections - 35 USC § 103***

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-18, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Makino et al (US Patent No. 4,825,405) in view of Teradaira et al (US Patent No. 5,800,081)

Concerning claims 1, 21, 24, Makino et al discloses a printer (1, Fig.1) adapted to be connected to an external device (2, Fig.2) and to receive data including control commands from the external device comprising a receive buffer (10) for temporarily storing received data; a data interpreter (34) for interpreting the data in the receive buffer; control means (34) responsive to the data interpreter for controlling the printer; state detection means (operation panel of the printer 1, Fig.1) for detecting whether the printer is in a first state (off-line) in which received data is not printed, or in a second state (on-line) in which received data is printed; clearing means (34) for clearing the received buffer, characterized in that the clearing means is responsive to the state detection means for clearing the receive buffer in response to the printer entering said first state (Figs. 1-2, 4-7; col. 1, lines 42-56; col. 2, lines 6-64; col. 3, line 30 – col. 4, line 63).

Makino does not teach that the external device 2 is a host computer. Teradaira et al discloses a printing apparatus (Fig.1 or Fig.2) connecting to a host computer (61, Fig.2) having a regular status data generating circuit for regularly generating status data (Abstract). Teradaira et al further teaches that the printing apparatus is for performing printing corresponding to at least one of print data and control commands provided from a host device and for providing the host device with a plurality of state of the printing apparatus (col. 14, lines 50-65). It would have been obvious to one skilled in the art at the time the invention was made to combine the teaching of the printing apparatus connected to the host computer in Teradaira et al to the system in Makino to consider the external device 2 as a host computer since the external device 2 in Makino can operate and function as the host computer in Teradaira et al's teaching.

Concerning claims 2-5, 7, 22, 23, Makino et al further teaches a setting means (9-16, Fig.2) for setting data handling mode that determines how data are handled when the printer is in

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the first state (off-line state); and reading means for reading the data handling mode in response to the printer entering the first state; wherein the clearing means is adapted to clear the receive buffer only when the data handling mode is set to allow clearing of the receive buffer (claims 2, 22), (Figs.5-6; col. 3, line 57 – col. 4, line 19); the setting means is adapted to set the data handling mode in response to a specific control command from the host computer (2), (claim 3), (col. 3, lines 50-51); a data discarding means for discarding data received from the host computer while the printer is in the first state (off-line state), (claims 4, 23), (col. 1, lines 44-46; col. 4, line 14-19); the data discarding means is adapted to discard data only when the data handling mode is set to allow discarding the data received from the host computer, (claim 5), (col. 1, lines 44-46; col. 4, line 3-30); the first state is an off-line state in which the data interpreter does not interpret received data, and the second state is an on-line state in which the data interpreter interprets received data, (claim 7), (col. 2, lines 20-26).

Concerning claim 6, Makino et al fails to directly teach a print buffer for storing expanded print data. However, Makino teaches a pattern memory 34a for storing various patterns data such as characters and figures and a program memory for controlling the printer. In addition, Teradaira et al further teaches a print buffer (65, Fig.5) wherein, when printing is executed by control means 66, control means 66 reads the print pattern from print buffer 65 and controls printer mechanism 67 to print. It would have been obvious to one skilled in the art at the time the invention was made to combine the teaching of the printing apparatus connected to the host computer in Teradaira et al to the system in Makino to consider the pattern memory 34a in Makino et al a print buffer as taught in Teradaira et al since both the pattern memory 34a in Makino et al and the print buffer in Teradaira et al have equivalent operations or functions.

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Claim 8 is method claim of apparatus claim 1. Claim 8 is rejected for the same rationales set forth for claim 1 above.

Concerning claims 9-14, 15,18, Makino et al further teaches that the clearing step is accomplished immediately after the first state is detected, (claim 9), (Fig.6; col. 4, lines 3-19); setting a data handling mode so as to either allow or not allow clearing of the received buffer (set up for different modes and states in Fig.4); reading the data handling mode in response to detection of the first state, wherein the clearing step comprises clearing the receive buffer only when the data handling mode read in step reading allows clearing of the receive buffer, (claim 10), (Fig. 6; col. 4, lines 3-19); the setting step is accomplished according to a specific control command from a host computer 2, (claim 11), (col. 3, lines 50-51); a step of discarding data received from a host computer after the receive buffer was cleared and until detecting step detects the second state, (claim 12), (Figs.5-6; col. 3, line 57 – col. 4, line 30); the step of discarding data comprises discarding data only when the data handling mode read in reading step further allows discarding the data received from the host computer, (claim 13), (Figs.5-6; col. 3, line 57 – col. 4, line 30); a step of saving in the receive buffer data received from the host computer after the receive buffer was cleared in the clearing step and until the detecting step detect the second state, (claim 14), (Figs.6-7; col. 4, lines 3-63); a step of clearing the receive buffer when the second state is detected in the detecting step after the first state had been detected, (claim 15), (col. 1, lines 44-46); the first state is an off-line state and the second state is an on-line state, (claim 18), (col. 2, lines 20-26).

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Concerning claims 16-17, Makino et al in view of Teradaira et al further teaches a clearing mode for clearing received data or contents stored in the memory (col. 1, lines 41-50; col. 4, lines 14-19; col. 7, lines 27-38).

Concerning claim 25, Makino et al further teaches a clearing unit that clear the receive buffer wherein if there is a state transition into the second state, the clearing unit clears the receive buffer (col. 4, lines 3-63).

Claims 26-27 are method claim of apparatus claims 1 and 25. Claims 26-27 are rejected for the same rationales set forth for claims 1 and 25.

4. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Teradaira et al (US Patent No. 5,800,081) in view of Ohtani (US Patent No. 5,598,271).

Concerning claim 19, Teradaira et al discloses a host computer (61, Fig.5) that sends data including control commands to a printer (printing apparatus, Fig.5) comprising means for sending print data accompanied by a printing completed command requesting said printer to notify the external device when printing is completed and means for detecting a printing completed notification received from the printer in response to the printing completed command (the status data sent to the data transmission means 77 to the host computer 61: col. 8, line 7 - col. 9, line 67; col. 12, lines 31-41); means for detecting an on-line state or off-line state notification from the printer (col. 8, lines 36-40); means resuming the printing job if the host computer receives an on-line notification from the printer after detecting an off-line notification (col. 9, lines 32-41; col. 13, lines 9-28).

It is noted that, although Teradaira et al does not specifically teach different means in the host computer but the description of the communication between the host computer and the printer indirectly teaches the above mentioned means. In addition, it was commonly known in the art that a conventional host computer with parts that can transmit and receive information to and from a printer. It would have been obvious to one skilled in the art at the time the invention was made to consider different means mentioned above include in the host computer since Teradaira teaches the well known prior art of a system having a host computer supplying image, character and/or control data to printer to produce an output (col. 1, lines 16-31; col. 2, lines 14-27).

Teradaira fails to teach the resending of print data to the printer after receiving an on-line notification from the printer. Ohtani discloses a printing system connected to a host computer (Fig.26) with an on/off printer unit (185) for controlling an on-line printer and an off-line printer, and an emulation card (235) allowing the printer to operate as a printer available from any one of different manufacturers of the host computer (col. 13, lines 14-40). Ohtani further teaches the case of resending print data, when the channel is disconnected from the printer (col. 15, lines 4-8). It would have been obvious to one skilled in the art at the time the invention was made to combine the above teaching of Ohtani to Teradaira's system since Teradaira also teaches the printing job can be resumed after receiving an on-line notification from the printer after the off-line detection (col. 8, lines 36-64; col. 9, lines 32-35).

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



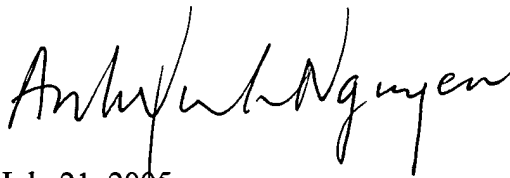
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a. Mordan et al (US Patent No. 5,220,674) discloses a print server for connection to a printer to form a printing system for servicing printing request is disclosed.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 571 272-7466. The examiner can normally be reached on Monday, Tuesday, Thursday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams can be reached on 571 272-7471. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



July 21, 2005

Madeleine AV Nguyen  
Primary Examiner  
Art Unit 2626